UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 6,608,409 B2
DATED : August 19, 2003
INVENTOR(S) : Wang et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 13,
Beginning at line 13, replace all claims 1 through 23 with the following:

1. In a synchronous machine, a rotor comprising:

a rotor core;

a super-conducting coil mounted on said rotor core and said coil having at least one coil side section extending along a side of the rotor core and radially outward of the side of the rotor core;

a vacuum housing straddling the at least one coil side section, wherein the vacuum housing further comprises a top plate and a pair of opposite sidewalls such that the at least one coil side section is enclosed on three sides by the vacuum housing, and further the sidewalls are in sealing engagement with the side of the rotor core, and

a conductive shield extending over said vacuum housing and coil side sections.

2. In a rotor as in claim 1 wherein said vacuum housing is a channel housing extending longitudinally along side of said rotor core, wherein said side is a planar section of the core and said coil side section and vacuum housing extend radially outward of said planar section.

3. In a rotor as in claim 1 wherein the conductive shield is formed of a copper alloy or aluminum.

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Column 13 (cont'd),

4. In a rotor as in claim 1 further comprising a rotor end shaft having a collar and a slot in the collar, wherein the vacuum housing is sealed to the slot and an end section of coil extends into the slot.

5. In a rotor as in claim 4 further comprising a vacuum around said coil and defined by the vacuum housing and slot in the collar.

6. In a rotor as in claim 1 further comprising a planar surface extending longitudinally across the rotor core, wherein the at least one of coil side section is adjacent the planar surface and extends radially outward of said planar surface.

7. In a rotor as in claim 1 wherein the vacuum vessel is stainless steel, and the shield is a copper alloy.

8. In a rotor as in claim 1 further comprising a plurality of braces buttressing the sidewalls of the vacuum housing and conductive shield.

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Column 13 (cont'd),

9. A rotor comprising:

a rotor core having an axis;

an end shaft extending axially from an end of said core, wherein said end shaft has a slot adjacent the core end;

a super-conducting rotor coil having at least one coil side parallel to the core axis and at least one coil end transverse to said core axis, wherein said coil end extends through said slot in the end shaft and said coil side extends radially outward of said rotor core;

a vacuum housing over said coil side and seal with said slot to define a vacuum region around said coil, wherein said vacuum housing has a rectangular cross-section and further comprises a top plate and a pair of opposite sidewalls such that the coil side is enclosed on a plurality of sides by the vacuum housing, and further the sidewalls are in sealing engagement with the rotor core.

10. A rotor as in claim 9 further comprising a conductive shield over said coil side.

11. A rotor as in claim 9 wherein said vacuum housing is sealed to said rotor core on both sides of said coil side.

12. A rotor as in claim 11 wherein each side wall is sealed to surface of the rotor core along an entire length of the rotor core.

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Column 13 (cont'd),

13. A rotor as in claim 12 wherein said surface of the rotor core is slotted to receive said side-walls.

14. A rotor as in claim 12 wherein said surface of said rotor core is planar adjacent said oil side.

15. A rotor as in claim 9 further comprising a plurality of braces buttressing said sidewalls of the vacuum housing and attached to said rotor core.

16. A rotor as in claim 15 further comprising an electromagnetic shield around said braces.

17. A rotor comprising:

a rotor core having an axis;

a pair of end shafts extending axially from opposite ends of said core, wherein said end shafts each have a slot adjacent the core end;

a super-conducting rotor coil having at least one coil side section parallel to the core axis and adjacent opposite sides of said core, and said coil having coil end sections transverse to said core axis and adjacent the ends of said core, wherein said coil end sections each extend through one of said slots in the end shafts and said coil side section extends radially outward of said rotor core;

a vacuum housing over each said coil side sections and having ends each being

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Column 13 (cont'd),

sealed to one of slots, wherein said vacuum housing further comprises a top plate and a pair of opposite sidewalls such that the coil side is enclosed on a plurality of sides by the vacuum housing, and further the opposite sidewalls are in sealing engagement with rotor core, and

a vacuum region around said coil defined by the slot in said pair of end shafts and vacuum housing over each of said coil side sections.

18. A rotor as in claim 17 further comprising a conductive shield over said coil side sections and overlapping with said end shafts, such that the shield is sealed to the end shafts.

19. A rotor as in claim 18 wherein said shield is a cylinder around said core.

20. A rotor as in claim 18 wherein said shield is formed partially by a top portion said vacuum housing.

21. A rotor as in claim 17 where in said shield is an arced strip extending a length of said core and extending only partially around a circumference of said core.

22. A rotor as in claim 21 where in said arced strip and a second arced strip each cover one of said coil side sections.

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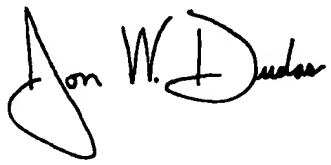
Column 13 (cont'd),

23. A rotor as in claim 18 further comprising braces adjacent said vacuum housing, attached to a surface of said rotor core and supporting said shield.

Signed and Sealed this

Fifteenth Day of June, 2004



JON W. DUDAS
Acting Director of the United States Patent and Trademark Office